

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars.

1. In the claims

As shown in the foregoing amendment to the claims, the claims have been amended to more clearly point out the subject matter for which protection is sought. In particular, the independent claims 1, 6 and 13 have each been amended to with new features for which support is clearly found in Figs. 4 and 5 of the pending application and the accompanying description in the specification. Claim 12 is canceled.

Entry of the amendment of the claims is respectfully requested in the next Office communication.

A. Claims 1 and 2

Claim 1 is amended to recite a cutting head assembly for a food slicing machine. This claim positively recites a cutting head, an impeller, a support ring and a mounting ring. This rearrangement of the claim is intended to overcome the objection to claim 1, as identified in the Office action.

It is asserted that the rearrangement of this claim to positively recite both the cutting head and impeller does not inject new subject matter into this claim.

The flange segments are now qualified as defining second flange surfaces that are located at an end opposite the first flange segments. Likewise, the protrusions are defined as having second protrusion surfaces that are located at an end opposite the first protrusion surfaces.

Claim 2 is amended to recite a "cutting head assembly" so as to be consistent with claim 1 due to its dependency therefrom.

B. Claims 6-8, 12 and 13

Claims 6 and 13 are each amended to recite that the flange segments “interlock” with the protrusions upon rotation of the mounting ring relative to the support ring in only one direction. The change of the term “interdigit” to “interlock” is not considered a limiting amendment since the usage of these terms is essentially for the same purpose.

Claim 13 now recites that the interlocking surfaces are oriented at an incline relative to the axis of the respective support and mounting rings.

Claims 7 and 8 are left unchanged.

Claim 12 is canceled without prejudice or disclaimer.

C. New claims 14-17

New claim 14 is dependent from claim 1 and recites that the lower surfaces of both the flange segments and the protrusions are aligned with one another when the support and mounting rings are engaged with one another. This particular feature has the added benefit of reducing the possibility of food waste accumulation between the flange segments and protrusions in a food processing environment.

New claim 15 is dependent from claim 14 and defines additional components of the support ring.

New claim 16 is dependent from claim 6, and generally recites the subject matter of claim 14.

New claim 17 is dependent from claim 13, and generally recites the subject matter of claim 14.

2. In the drawings

Fig. 4 is presently amended in the Replacement Sheet of page 3 of the drawings. Specifically, reference numeral 72 is added to identify the second flange surface of the flange segments, and reference numeral 74 is provided to identify the

second protrusion surface. No new subject matter is introduced, since only identification of already illustrated features is provided by way of this amendment.

Acceptance of the Replacement Sheet is respectfully requested in the next Office communication.

3. In the specification

The specification is amended to provide written support for the changes made in the drawings in view of the amendment to claim 1. No new matter is added to the application since the second flange surface and the second protrusion surface are shown in Fig. 4, as originally filed.

Entry of the amendment to the specification is respectfully requested.

4. Rejection of claims 6, 8, 12 and 13 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent RE 30,680 (Kress et al.)

This rejection is respectfully traversed on the basis that the Kress et al. patent fails to disclose or suggest each and every feature required by claims 6, 8 and 13.

The Kress et al. patent fails to disclose or suggest the interlocking "inclined" surfaces of both the flange segments of the support ring, and the protrusions of the mounting ring. On the contrary, in observing Figs. 7 - 10, the Kress et al. patent shows tabs 26 of rotatable part 24 and the tabs 40 of the driving shaft 16 as forming a bayonet coupling (col. 5, lines 27-36).

This bayonet coupling is exemplified in Fig.8 showing the tabs in an unlocked state and in Fig. 10 showing the tabs in a locked state. It is clear from the depiction in Figs. 8 and 10 that the tabs do not have inclined surfaces that interlock. Instead, the tabs have planar surfaces which frictionally engage one another. The thin tabs described and illustrated by the Kress et al. patent are clearly not suitable for including interlocking inclined surfaces due to their thin nature and the bayonet coupling that they are particularly described as forming. Nowhere in the Kress et al. patent is there any disclosure or suggestion of inclined surfaces of interlocking parts

that are oriented relative to an axis of a ring to which they belong, as required by both claims 6 and 13.

In view of these comments, it is submitted that the Kress et al. patent does not anticipate each and every feature required by claims 6, 8 and 13. Withdrawal of this rejection is therefore requested.

5. Rejection of claims 12 and 13 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent 2,101,679 (Hull)

This rejection is respectfully traversed on the basis that the Hull patent fails to disclose or suggest each and every feature required by claim 13.

Claim 13 is amended to recite that the support and mounting rings form the coupling with the first and second interlocking surfaces upon rotation of the mounting ring relative to the support ring in only one direction. It is abundantly clear in view of Figs. 4 and 5 of the Hull patent that the wedge shaped projections 9 of the lugs 8 of the adapter 5 engage the projecting lugs 10 of the hub 6 when rotated in either rotational directions (col. 1, line 44 through col. 2, line 7).

As a result, the Hull patent does not anticipate each and every feature according to claim 13. Withdrawal of this rejection is therefore requested.

6. Rejection of claims 6-8, 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 2,101,679 (Hull)

This rejection is respectfully traversed on the basis described above in section (5) of these remarks. Namely, the Hull patent does not recite support and mounting rings that form their coupling when the mounting ring is rotated in only one direction.

In addition, it is alleged in the Office action that the orientation of the support and mounting rings is irrelevant to the functioning of the rings. With regards to claim 13, applicants respectfully disagree.

It will be noted that the joint arrangement of claim 13 is provided for mounting a cutting head. The placement of the flanges on the support ring, and the

protrusions of the mounting ring are arranged in their particular orientations in order to reduce the possibility of food material build-up resulting from cutting operations. The flanges of the support ring create a greater possibility for food material build up due to their greater surface area, whereas the protrusions are substantially smaller and thus do not present as much area for food accumulation. Also, since the protrusions are directed downwardly and away from the cutting head, food accumulation is also reduced. Taken in combination with one another, the placement and orientation of the flanges and the protrusions are arranged in a manner to reduce food material accumulation.

The placement and orientation of the flanges and protrusions required by claim 13 would not be obvious to one skilled in the art of food processing due to the fact that the Hull patent is related to rayon spinning buckets and not food processing. Therefore, there is no suggestion as to the desirability of the prescribed orientation of the features of claim 13 in the Hull patent.

In view of these observations, withdrawal of the rejection of claims 6-8 and 13 as being obvious over the Hull patent is respectfully requested.

7. Rejection of claims 1, 2, 6-8, 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,694,824 (Jacko et al.) in view of U.S. patent 2,101,679 (Hull)

This rejection is respectfully traversed on the basis that claims 1, 2, 6-8 and 13 are not obvious in view of the proposed combination of the Jacko et al. patent with the Hull patent. The basis for this rejection is for the reasons described above in both sections (5) and (6) of the foregoing remarks with regards to the teachings of the Hull patent, and the amendment to claim 1.

Claim 1 is amended to recite that the flange segments and the protrusions each have second surfaces opposite the inclined surfaces that are substantially parallel to the axis of their corresponding rings. This provides the result that the rings are only

interlockable when rotated in one direction. This imparts the benefit that the cutting head may be easily removed without inadvertently engaging the flange segments or protrusions when rotated in a direction opposite the interlocking direction.

Applicants submit that it would not be obvious to one skilled in the art from the teachings of either the Jacko et al. patent or the Hull patent to configure the support and mounting rings so that they are only interlockable in one rotational direction. There is simply no evidence in either of these references that would motivate one skilled in the art to modify the rings of the Jacko et al. patent with the teachings of the Hull patent to make the ring arrangements required in the pending claims.

Accordingly, withdrawal of this rejection is respectfully requested.

8. Conclusion

In view of the amendments of the claims and the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that the pending claims be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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Respectfully submitted,



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